WEST Search History

DATE: Thursday, July 11, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB; PLUR=YES; OP=ADJ			
L9	6316408.pn.	1	L9
L8	6242586.pn.	1	L8
L7	5843678.pn.	2	L7
L6	6271349.pn.	1	L6
L5	6242213.pn.	1	L5
L4	6017729.pn.	1	L4
L3	RANK adj ligand	25	L3
L2	L1	24554	L2
L1	RANK	24554	L1

END OF SEARCH HISTORY

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L4: Entry 1 of 1 File: USPT Jan 25, 2000

US-PAT-NO: 6017729
DOCUMENT-IDENTIFIER: US 6017729 A

TITLE: Receptor activator of NF-.kappa.B

DATE-ISSUED: January 25, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; Dirk M.	Seattle	WA		
Galibert; Laurent	Seattle	WA		
Maraskovsky; Eugene	Caulfield Nth			AUX

US-CL-CURRENT: 435/69.1; 435/235.1, 435/252.3, 435/320.1, 435/325, 435/70.1, 530/350, 536/23.1, 536/24.31

CLAIMS:

We claim:

1. An isolated DNA selected from the group consisting of:

(a) a DNA encoding a protein comprising amino acids x through 616 of SEQ ID NO:6, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 24 through 33 of SEQ ID NO:6;

(b) a DNA encoding a protein comprising amino acids x through 625 of SEQ ID NO:15, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 25 through 35 of SEQ ID NO:15;

(c) DNA encoding a polypeptide comprising amino acids x through y of SEQ ID NO:6, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 24 through 33 of SEQ ID NO:6, and y is selected from the group consisting of any one of amino acids 196 through 213;

(d) DNA encoding a polypeptide comprising amino acids x through y of SEQ ID NO:15, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 25 through 35 of SEQ ID NO:15, and y is selected from the group consisting of any one of amino acids 197 through 214; and

(e) DNA molecules encoding fragments of proteins encoded by the DNA of (a)-(d), wherein the fragment is capable of binding RANKL or binding a TRAF.

2. An isolated DNA which encodes a polypeptide comprising amino acids x through y of SEQ ID NO:6, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 24 through 33 of SEQ ID NO:6, and y is selected from the group consisting of any one of amino acids 196 through 213.

3. The isolated DNA of claim 2, which further comprises a DNA encoding a polypeptide selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG.TM. tag, a peptide comprising at least about 6 His residues, a leucine zipper, and combinations thereof.

4. A recombinant expression vector comprising a DNA sequence according to claim 1.

5. A recombinant expression vector comprising a DNA sequence according to claim 2.

6. A recombinant expression vector comprising a DNA sequence according to claim 3.

~~7. A host cell transformed or transfected with an expression vector according to claim 4.~~

8. A host cell transformed or transfected with an expression vector according to claim 5.

9. A host cell transformed or transfected with an expression vector according to claim 6.

10. A process for preparing a protein, comprising culturing a host cell according to claim 7 under conditions promoting expression of the protein.

11. A process for preparing a protein, comprising culturing a host cell according to claim 8 under conditions promoting expression of the protein.

12. A process for preparing a protein, comprising culturing a host cell according to claim 9 under conditions promoting expression of the protein.

13. An isolated DNA that is at least 9 nucleotides in length, and which is a fragment of the DNA of the coding region of SEQ ID NO:5.

14. An isolated DNA encoding a protein comprising the amino acid sequence x through 616 of SEQ ID NO:6, wherein x is selected from the group consisting of amino acid 1 and any one of amino acids 24 through 33 of SEQ ID NO:6.

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L5: Entry 1 of 1 File: USPT Jun 5, 2001

US-PAT-NO: 6242213
DOCUMENT-IDENTIFIER: US 6242213 B1

TITLE: Isolated DNA molecules encoding RANK-L

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; Dirk M.	Seattle	WA		

US-CL-CURRENT: 435/69.1; 435/252.3, 435/254.11, 435/320.1, 435/325, 530/350, 536/23.5

CLAIMS:

We claim:

1. An isolated DNA molecule encoding a RANK-L polypeptide that binds RANK, wherein said polypeptide comprises amino acids 1 to 317 of SEQ ID NO:13.

2. The isolated DNA molecule of claim 1, wherein said DNA molecule comprises nucleotides 1 to 951 of SEQ ID NO: 12.

3. An expression vector comprising a DNA molecule of claim 2.

4. A host cell transformed or transfected with an expression vector of claim 3.

5. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 4 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

6. An expression vector comprising a DNA molecule of claim 1.

7. A host cell transformed or transfected with an expression vector of claim 6.

8. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 7 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

9. An isolated DNA molecule encoding a RANK-L polypeptide that binds RANK, wherein said polypeptide comprises amino acids 138 to 317 of SEQ ID NO:13.

10. The isolated DNA molecule of claim 9, wherein said DNA molecule comprises nucleotides 412 to 951 of SEQ ID NO:12.

11. An expression vector comprising a DNA molecule of claim 10.

12. A host cell transformed or transfected with an expression vector of claim 11.

13. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 12 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

14. An expression vector comprising a DNA molecule of claim 9.

15. A host cell transformed or transfected with an expression vector of claim 14.

16. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 15 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

17. An isolated DNA molecule encoding a RANK-L polypeptide that binds RANK, wherein said polypeptide comprises amino acids 69 to 313 of SEQ ID NO:13.

18. The isolated DNA molecule of claim 17, wherein said DNA molecule comprises nucleotides 205 to 939 of SEQ ID NO: 12.

19. An expression vector comprising a DNA molecule of claim 18.

20. A host cell transformed or transfected with an expression vector of claim 19.

21. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 20 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

22. An expression vector comprising a DNA molecule of claim 17.

23. A host cell transformed or transfected with an expression vector of claim 22.

24. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 23 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

25. An isolated DNA molecule encoding a RANK-L polypeptide that binds RANK, wherein said polypeptide comprises amino acids 162 to 313 of SEQ ID NO:13.

26. The isolated DNA molecule of claim 25, wherein said DNA molecule comprises nucleotides 484 to 939 of SEQ ID NO:12.

27. An expression vector comprising a DNA molecule of claim 26.

28. A host cell transformed or transfected with an expression vector of claim 27.

29. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 28 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

30. An expression vector comprising a DNA molecule of claim 25.

31. A host cell transformed or transfected with an expression vector of claim 30.

32. A process for preparing a RANK-L polypeptide, comprising culturing a host cell of claim 31 under conditions promoting expression of RANK-L polypeptide, and recovering the RANK-L polypeptide so expressed.

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L6: Entry 1 of 1 File: USPT Aug 7, 2001

US-PAT-NO: 6271349
DOCUMENT-IDENTIFIER: US 6271349 B1

TITLE: Receptor activator of NF-.kappa.B

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dougall; William C.	Seattle	WA		
Galibert; Laurent	Seattle	WA		

US-CL-CURRENT: 530/351; 435/235.1, 435/252.3, 435/320.1, 435/325, 435/69.1, 530/350, 536/23.1, 536/24.31

CLAIMS:

We claim:

1. A polypeptide selected from the group consisting of:

a) a polypeptide having an amino acid sequence of amino acids 234 to 422 of SEQ ID NO:6, wherein said polypeptide is capable of binding TRAF 6;

b) a polypeptide having an amino acid sequence of amino acids 422-616 of SEQ ID NO:6, wherein said polypeptide is capable of binding a TRAF selected from the group consisting of TRAF 1, TRAF 2, TRAF 3, TRAF 5 and TRAF 6;

c) a polypeptide having an amino acid sequence of amino acids 339-422 of SEQ ID NO:6, wherein said polypeptide is capable of binding TRAF 6;

d) a polypeptide having an amino acid sequence of amino acids 545-616 of SEQ ID NO:6, wherein said polypeptide is capable of binding a TRAF selected from the group consisting of TRAF 1, TRAF 2, TRAF 3, TRAF 5 and TRAF 6;

e) a polypeptide having an amino acid sequence of amino acids 339-362 of SEQ ID NO:6, wherein said polypeptide is capable of binding TRAF 6;

f) a polypeptide encoded by a DNA capable of hybridization to a DNA having a nucleotide sequence as set forth in SEQ ID NO:5 under stringent conditions, wherein said stringent conditions include hybridizing at 6.times.SSC at 63.degree. C. and washing in 3.times.SSC at 55.degree. C., and further wherein the polypeptide is capable of binding a TRAF selected from the group consisting of TRAF 1, TRAF 2,TRAF 3, TRAF 5 and TRAF 6;

g) fragments of the polypeptides of (a), (c) or (e), wherein the fragments are capable of binding TRAF 6; and

h) fragments of the polypeptides of (b), (d) or (f), wherein the fragments are capable of binding a TRAF selected from the group consisting of TRAF1, TRAF2, TRAF3, TRAF5 and TRAF6.

2. A polypeptide having an amino acid sequence at least about 80% identical to a polypeptide selected from the group consisting of:

a) a polypeptide having an amino acid sequence of amino acids 234 to 422 SEQ ID NO:6, said polypeptide being capable of binding TRAF6;

b) a polypeptide having an amino acid sequence of amino acids 422-616 of SEQ ID NO:6, ~~said polypeptide being capable of binding a TRAF selected from the group consisting of~~ TRAF1, TRAF2, TRAF3, TRAF5 and TRAF6;

c) a polypeptide having an amino acid sequence of amino acids 339-422 of SEQ ID NO;6, said polypeptide being capable of binding TRAF6;

d) a polypeptide having an amino acid sequence of amino acids 545-616 of SEQ ID NO:6, said polypeptide being capable of binding a TRAF selected from the group consisting of TRAF1, TRAF2, TRAF3, TRAF5 and TRAF6;

e) a polypeptide having an amino acid sequence of amino acids 339-362 of SEQ ID NO:6, said polypeptide being capable of binding TRAF6;

f) a polypeptide encoded by a DNA capable of hybridization to a DNA having a nucleotide sequence as set forth in SEQ ID NO:5 under stringent conditions, wherein said stringent conditions include hybridizing at 6.times.SSC at 63.degree. C. and washing in 3.times.SSC at 55.degree. C., said polypeptide being capable of binding a TRAF selected from the group consisting of TRAF1, TRAF2, TRAF3, TRAF5 and TRAF6;

g) fragments of a polypeptide of (a), (c) or (e), wherein the fragments are capable of binding TRAF 6; and p1 h) fragments of a polypeptide of (b), (d) or (f), wherein the fragments are capable of binding a TRAF selected from the group consisting of TRAF1, TRAF2, TRAF3, TRAP5 and TRAF6.

3. A polypeptide of claim 1 which further comprises a peptide selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG.TM. tag, a peptide comprising at least about 6 His residues, a leucine zipper, and combinations thereof.

4. A polypeptide according to claim 2 which further comprises a peptide selected from the group consisting of an immunoglobulin Fc domain, an immunoglobulin Fc mutein, a FLAG.TM. tag, a peptide comprising at least about 6 His residues, a leucine zipper, and combinations thereof.

L7: Entry 1 of 2 File: USPT Dec 1, 1998

US-PAT-NO: 5843678
DOCUMENT-IDENTIFIER: US 5843678 A

TITLE: Osteoprotegerin binding proteins

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 435/7.1; 514/2, 530/300, 530/350

CLAIMS:

What is claimed is:

1. A purified and isolated osteoprotegerin binding protein.

2. The protein of claim 1 which is a human osteoprotegerin binding protein.

3. The protein of claim 1 having the amino acid sequence as shown in FIG. 1 (SEQ ID NO:7).

4. The protein of claim 1 which has been covalently modified with a water-soluble polymer.

5. The protein of claim 4 wherein the polymer is polyethylene glycol.

6. The protein of claim 1 which is a soluble osteoprotegerin binding protein.

7. The protein of claim 6 having the amino acid sequence from residues 70-316 inclusive as shown in FIG. 1 (SEQ ID NO:7).

8. A fragment, analog, or derivative of the soluble osteoprotegerin binding protein of claim 7, said fragment, analog, or derivative having the ability to bind osteoprotegerin.

9. A fragment, analog, or derivative of the osteoprotegerin binding protein of claim 1, said fragment, analog, or derivative having the ability to bind osteoprotegerin.

10. The protein of claim 1 which is fused to a heterologous protein sequence and retains osteoprotegerin binding activity.

11. A purified and isolated polypeptide encoded by the nucleic acid sequence shown in FIG. 1 (SEQ ID NO:6) or a nucleic acid sequence which hybridizes under the high stringency conditions of 65.degree. C. and 1M Na.sup.+ to the nucleic acid sequence shown in FIG. 1 (SEQ ID NO:6), said polypeptide having the ability to bind osteoprotegerin.

12. A purified and isolated polypeptide having the ability to bind osteoprotegerin, said polypeptide produced by a process comprising growing under suitable nutrient conditions host cells transformed or transfected with the sequence shown in FIG. 1 (SEQ ID NO:6) or a nucleic acid sequence which hybridizes under the high stringency

conditions of 65.degree. C. and 1M Na.sup.+ to the nucleic acid sequence shown in FIG. 1 (SEQ ID NO:6), and isolating the polypeptide product resulting from the expression of the nucleic acid, said polypeptide having the ability to bind osteoprotegerin.

13. A pharmaceutical composition comprising a therapeutically effective amount of an osteoprotegerin binding protein in a pharmaceutically acceptable carrier, adjuvant, solubilizer, stabilizer and/or anti-oxidant.

14. The composition of claim 13 wherein the osteoprotegerin binding protein is a human osteoprotegerin binding protein.

15. A method for detecting the presence of osteoprotegerin in a biological sample comprising:

incubating the sample with an osteoprotegerin binding protein under conditions that allow binding of the protein to osteoprotegerin; and

measuring the bound osteoprotegerin binding protein.

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L8: Entry 1 of 1 File: USPT Jun 5, 2001

US-PAT-NO: 6242586
DOCUMENT-IDENTIFIER: US 6242586 B1

TITLE: Mammalian cell surface antigens: related reagents

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gorman; Daniel M.	Newark	CA		
Mattson; Jeanine D.	San Francisco	CA		

US-CL-CURRENT: 536/23.4; 424/185.1, 435/252.1, 435/320.1, 435/325, 435/348, 435/352, 435/354, 435/363, 435/366, 435/6, 435/69.3, 435/91.1, 530/350, 530/395, 530/402, 536/23.5, 536/24.3, 536/24.33

CLAIMS:

What is claimed is:

1. A polypeptide selected from the group consisting of:

a) a substantially pure or recombinant 499E9 polypeptide exhibiting 100% sequence identity over a length of at least 12 contiguous amino acids to SEQ ID NO: 2;

b) a natural sequence 499E9 of SEQ ID NO: 2; and

c) a fusion protein comprising 499E9 sequence.

2. The polypeptide of claim 1, wherein said recombinant 499E 9 polypeptide has 100% identity over at least 17 contiguous amino acids.

3. The polypeptide of claim 1, wherein said polypeptide is from a mammal.

4. A sterile composition comprising said polypeptide of claim 1.

5. The polypeptide of claim 1, wherein said fusion protein compromises mature protein sequence of Table 1 (see SEQ ID NO: 2) and:

a) a detection or purification tag, selected from the group consisting of a FLAG, His6, or Ig sequence; or

b) sequence of another tumor necrosis factor ligand protein.

6. A kit comprising a compartment comprising said polypeptide of claim 1 and instructions for use or disposal of reagents in said kit.

7. An isolated or recombinant nucleic acid encoding said polypeptide of claim 1, wherein said 499E9 polypeptide is from a mammal.

8. A cell comprising said recombinant nucleic acid of claim 7.

9. The cell of claim 8, wherein said cell is:

a) a prokaryotic cell;

b) a eukaryotic cell;

c) a bacterial cell;

d) a yeast cell;

e) an insect cell;

f) a mammalian cell;

g) a mouse cell;

h) a rodent cell; or

i) a human cell.

10. A kit comprising a compartment comprising said nucleic acid of claim 7 and instructions for use or disposal of reagents in said kit.

11. A nucleic acid which selectively hybridizes under wash conditions of at least 45.degree. C. and less than 500 mM salt to SEQ ID NO: 1.

12. The nucleic acid of claim 11, wherein:

a) said wash conditions are at least 55.degree. C. and less than 150 mM salt; or

b) said nucleic acid comprises at least 30 contiguous nucleotides of the coding portion of SEQ ID NO: 1.

13. The polypeptide of claim 1, which comprises the natural sequence 499E9 of SEQ ID NO: 2.

14. The polypeptide of claim 2, wherein said 100% identity of the recombinant 499E9 polypeptide is over at least 25 contiguous amino acids.

15. The polypeptide of claim 2, wherein said 100% identity of the recombinant 499E9 polypeptide is over at least 30 contiguous amino acids.

16. The polypeptide of claim 1, wherein said substantially pure 499E9 polypeptide has a length of at least 30 amino acids.

17. The polypeptide of claim 1, which is:

a) glycosylated;

b) a synthetic polypeptide;

c) attached to a solid substrate; or

d) conjugated to another chemical entity.

18. A coiposition comprising said polypeptide of claim 1 and an aqueous carrier.

19. The composition of claim 18, formulated for oral, rectal, nasal, topical, or parenteral administration.

20. The isolated or recombinant nucleic acid of claim 7, which comprises at least 22 contiguous nucleotides of the coding portion of SEQ ID NO: 1.

21. An isolated or recombinant nucleic acid which encodes said polypeptide of claim 1, wherein said polypeptide is an antigenic peptide of Table 1 (see SEQ ID NO: 2).

22. The isolated or recombinant nucleic acid of claim 21, which comprises at least 29 contiguous nucleotides of the coding portion of SEQ ID NO: 1.

23. An isolated or recombinant nucleic acid encoding a polypeptide of claim 1, which exhibits 100% identity over the protein coding portion of a natural DNA encoding said 499E9 polypeptide.

24. A vector which encodes said polypeptide of claim 1 and comprises at least 35 contiguous nucleotides of the coding portion of SEQ ID NO: 1 and:

a) transcriptional regulatory sequences operably linked to said 499E9 coding sequence; or

b) an origin of replication.

25. The vector of claim 24, comprising at least 41 contiguous nucleotides from the coding portion of SEQ ID NO: 1.

26. An isolated or recombinant nucleic acid encoding said polypeptide of claim 1, wherein said nucleic acid:

a) is from a natural source;

b) comprises a detectable label;

c) comprises synthetic nucleotide sequence; or

d) comprises natural full length coding sequence.

27. An isolated or recombinant nucleic encoding said polypeptide of claim 1, which is a hybridization probe for a gene encoding a tumor necrosis factor ligand family protein.

28. A cell comprising said nucleic acid of claim 21.

29. A cell comprising said nucleic acid of claim 23.

30. A cell comprising said vector of claim 24.

31. A cell comprising said nucleic acid of claim 26.

32. A kit comprising a compartment comprising a nucleic acid of claim 26 and instructions for use or disposal of reagents in said kit.

33. A kit comprising a compartment comprising said nucleic acid of claim 27 and instructions for use or disposal of reagents in said kit.

34. A method of making a protein, comprising culturing said cell of claim 8 in an environment resulting in expressing said protein and recovering said protein.

35. A method of making a protein, comprising culturing said cell of claim 28 in an environment resulting in expressing said protein and recovering said protein.

36. A method of making a protein, comprising culturing said cell of claim 30 in an environment resulting in expressing said protein and recovering said protein.

37. A method of making a duplex nucleic acid comprising contacting said nucleic acid of claim 21 with a complementary nucleic acid under selective hybridization conditions of at least 45.degree. C. and less than 500 mM salt, thereby forming said duplex.

38. A method of making a nucleic acid of claim 7, comprising amplifying said nucleic acid using PCR amplification methods.

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L9: Entry 1 of 1 File: USPT Nov 13, 2001

US-PAT-NO: 6316408
DOCUMENT-IDENTIFIER: US 6316408 B1

TITLE: Methods of use for osetoprotegerin binding protein receptors

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 514/12; 530/350

CLAIMS:

What is claimed is:

1. A method for preventing or treating bone disease in a mammal comprising administering to a mammal having reduced bone density or susceptible to reduced bone density a therapeutically effective amount of a soluble form of an osteoclast differentiation and activation receptor (ODAR).

2. The method of claim 1 wherein ODAR comprises a soluble form of human ODAR.

3. The method of claim 2 wherein the soluble form of human ODAR is lacking a functional transmembrane region.

4. The method of claim 2 wherein ODAR comprises part or all of the extracellular domain of human ODAR and is capable of binding to OPG binding protein.

5. The method of claim 2 wherein the soluble form of human ODAR is fused to a heterologous amino acid sequence.

6. The method of claim 5 wherein the heterologous amino acid sequence comprises an Fc region of human IgG.

7. The method of claim 1 wherein the mammal is a human.

8. The method of claim 1 wherein the bone disease is selected from the group consisting of osteoporosis, osteomyelitis, hypercalcemia of malignancy, osteopenia brought on by surgery or steroid administration, Paget's disease, osteonecrosis, bone loss due to rheumatoid arthritis, periodontal bone loss, immobilization, prosthetic loosening and osteolytic metastasis.

9. The method of claim 1 further comprising administering a therapeutically effective amount of a bone morphogenic factor, TGF-.beta. family member, fibroblast growth factor, IL-1 inhibitor, TNF-.alpha. inhibitor, parathyroid hormone, E series prostaglandin, bisphoshponate, estrogen, SERM, or bone-enhancing mineral.